Application No. 10/562,136

Filed: April 14, 2008

Response to Non-Final Office Action mailed December 17, 2010

Page 3 of 16

Amendments to the Specification:

Please amend the specification of the present application as follows.

1) Please replace page 18, the second paragraph of the specification with the following paragraph:

As shown in Fig. 7, the electric driven bus 200 also has a fixed great capacitor 252264 mounted in the bus, which is controlled by a charging controller 263 in an electric braking system to store energy produced by braking through an electric braking system, through utilizing capacitor's characteristic of charging and discharging in great ratio power, and to supply for the auxiliary motor 262 in the bus 200 to discharge in short term and help main motor 261 to start bus 200. The bus-mounted programmable logic controller 260 determines whether to start the auxiliary motor 262 on the basis of whether the current bus speed is zero or not. Only when the speed of the bus is accelerating from zero, the auxiliary motor 262 will start for several seconds or dozens of seconds to reduce the starting current of the main motor as the electric driven bus starts. The transmission of electric driven bus 200 may be also equipped with hydraulic centrifugal clutch 267 and centrifugal overdrive 2-speed gear to make the starting current smaller and lower the impact on batteries and electric control system by large current. The electric driven bus 200 is equipped with two-grade braking means to improve the brake efficiency of electric driven bus 200. When the driver steps on the brake pedal lightly, the main motor 261 of the electric driven bus will turn into a generator to change vehicle inertia kinetic energy into electric energy which is charged into a bus-mounted capacitor 252264 controlled by a charging controller 263 in the electric braking system. When the driver steps on the brake pedal deeply, the pneumatic brake system will start to stop the vehicle promptly. The pneumatic brake system comprises driving motor 253265 and air pump 254266, and a gas container provides gas resource. The above means has advantage of reducing instant impact current while electric driven bus 200 starts and protecting the cassette battery set 204 for a longer usage. The above means also lengthen the service life of the main motor 261 and a controller of main motor.

Application No. 10/562,136

Filed: April 14, 2008

Response to Non-Final Office Action mailed December 17, 2010

Page 4 of 16

2) Please replace page 19, line 13 to page 20, line 2 of the specification with the following paragraph:

Figs. 10 to 13 show mechanical arms 300' of balance type in loading and unloading apparatus 300 of ground type in an electric public transit system of the present invention. Fig. 10 shows arrangement of the electric driven bus, charge station, and mechanical arms of balance type (ground type). Fig.11 is the structure schematic view of the joint arms of mechanical arms of balance type and joint openings on the chassis of the electric driven bus. Fig. 12 is the structure of mechanical arms of balance type. Fig. 13 is the schematic view of mechanical arms of the balance type with the moving means for the cassette battery set. The mechanical arms 300' of balance type include moving platform 301, rotating platform 302, vertical lift means 307, tray 306, tracks 312, track wheels 311 and rotating mechanism 313. Rotating platform 302 is driven by a motor and gear reduction 314 under the command of a programmable logic controller positioned in a proper place on the mechanical arms, and supported on the moving platform 301 by rollers 303. The vertical lift means 307 comprises vertical lift hydraulic cylinder 331, a chain 332, and a gear 335, and a plurality of sufficient sensors 308 are positioned in the vertical lift arms, which can make tray 306 positioned at any place along the vertical lift arms. Joint arms 325 and the moving means 324 and rollers 323 are set up on the tray 306 for cassette battery set. The moving means 324 comprises shift fork driven by the chain. The movement mechanism of the mechanical arms of balance type moves parallel along track 312 via track wheels 311 driven by a driving means. When entire mechanical arms move along track 312, they are positioned by a plurality of sensors placed at corresponding positions on the track in the front of each group of the charging shelves.

3) Please replace page 20, the fourth paragraph with the following paragraph:

Fig.14A and 14B show the loading and unloading apparatus set underground, in which the mechanical arms of parallel type are equipped with a PLC as its control system, joint arms 325 and its driving means 327. The joint arms are for engaging with joint openings 207 for cavity 220 of electric driven bus 200. The charge station 400 is set up under the road surface where the electric bus 200 runs and includes cassette battery sets 204 placed layer over layer and charging

Application No. 10/562,136

Filed: April 14, 2008

Response to Non-Final Office Action mailed December 17, 2010

Page 5 of 16

shelf 401. A fast parallel exchanging apparatus 392 comprises a parallel moving platform 380, track wheels 381, track 382 and vertical lift apparatus 383. The fast parallel exchanging apparatus also has a moving means same as that in the loading and unloading apparatus of ground type.

4) Please replace page 21, the second paragraph with the following paragraph:

Figs. 15 and 16 shows an embodiment with arrangement of sensors and control panel of the mechanical arms. A plurality of sensors are positioned along the horizontal track and vertical arms of mechanical arms 300' for controlling operation of the mechanical arms, such as lifting, moving and rotating. It is obvious that the person skilled in the art may also employ other control panels with similar arrangements, which may result in same effects.

The above amendments of the specification are based on the original specification and drawings as well as the original PCT publication of the present application in Chinese. No new matter has been added.